

The Claims

1. An electrode strip for use in an electrochemical sensor for measuring an analyte in an aqueous sample, comprising:
an elongated electrode support having a terminal end;
a first and a second electrode on said support for electrochemical analysis of said analyte, said first electrode having a forwardly disposed leg which is near said terminal end and second electrode having a rearwardly disposed leg which is rearwardly disposed with respect to both said terminal end and said forward leg of said first electrode;
a dielectric layer, a screen, and a cover layer, all disposed atop each other and atop said electrodes and said support;
said dielectric layer and cover layer having an open-topped slot therein, said slot being open to said terminal end and extending over at least said forwardly and rearwardly disposed electrode legs, said slot forming a vent at least over said forwardly and rearwardly disposed electrode legs; and
said screen having a porosity between 10 % and 40% to control analyte flow and volume in said slot and over said forwardly and rearwardly disposed electrode legs.
2. An electrode strip as claimed in claim 1 including intermediate layers of adhesive, one adhesive layer disposed between said screen and said dielectric and another adhesive layer disposed between said screen and said cover layer, each intermediate adhesive layer having a respective slot generally coextensive with said slot in said dielectric layer and said cover layer.
3. An electrode strip as claimed in claim 1 wherein said screen carries a surfactant to enhance wetting by said analyte.

4. An electrode strip as claimed in claim 1 where said screen is a polyester mesh screen with a mesh opening of about 15 - 20 microns.
5. An electrode strip as claimed in claim 3 wherein the surfactant is one from the group of sulphonal and sulfosuccinate.
6. An electrode strip as claimed in claim 1 wherein the screen is made from one material from the group of polyester, nylon and polypropylene.
7. An electrode strip as claimed in claim 6 wherein the surfactant is one from the group of sulphonal and sulfosuccinate.
8. An electrode strip as claimed in claim 1 wherein the screen has a mesh opening of about 15 - 20 microns and a mesh size of about 500 per square inch.
9. An electrode strip as claimed in claim 1 wherein the terminal end of said support and said slot form a terminal end hook which gathers said analyte.
10. An electrode strip as claimed in claim 1 wherein said support includes a forward end section ending at said terminal end and a central section and a rearward end section; said screen is disposed generally over said forwardly and rearwardly disposed electrodes and said forward end section of said support and is not disposed over said central section and rearward end sections of said support.